

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A device for detecting the presence of an antigen, comprising:
a cell having antibodies which are expressed on the surface of the cell and are specific for the antigen to be detected, wherein binding of the antigen to the antibodies results in an increase in calcium concentration in the cytosol of the cell, the cell further having an emitter molecule which, in response to the increased calcium concentration, emits a photon;
a liquid medium in which the cell is immersed, the liquid medium receiving the antigen to be detected; and
an optical detector arranged for receiving the photon emitted from the cell.
2. (Original) The device of claim 1, wherein the optical detector is affixed to the liquid medium containing the cells.
3. (Original) The device of claim 1, wherein the optical detector is a charge-coupled device.
6. (Original) The device of claim 1, wherein the antibody is a chimeric antibody.
7. (Original) The device of claim 1, wherein the antibody is a single-chain antibody.
8. (Original) The device of claim 1, wherein the emitter molecule is aequorin.

9. (Original) A device for detecting the presence of two or more antigens, comprising:
an array containing a plurality of sectors, each sector containing a cell having antibodies
which are expressed on the surface of the cell and are specific for the antigen to be detected,
wherein binding of the antigen to the antibodies results in an increase in calcium concentration in
the cytosol of the cell, the cell further having an emitter molecule which, in response to the
increased calcium concentration in the cytosol, emits a photon;

liquid media in which the cell of each sector is immersed; and
an optical detector arranged for receiving the photon emitted from the cell;
wherein each sector contains a cell having antibodies specific to a different antigen.

10. (Original) The device of claim 9, wherein the optical detector is affixed to the liquid
medium containing the cells.

11. (Original) The device of claim 9, wherein the optical detector is a charge-coupled
device.

14. (Original) The device of claim 9, wherein the antibody is a chimeric antibody.

15. (Original) The device of claim 9, wherein the antibody is a single-chain antibody.

16. (Original) The device of claim 9, wherein the emitter molecule is aequorin.

17. (Original) The device of claim 9, wherein the liquid media receives the antigen to be
detected.